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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
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POULTRY STATISTICS OF U. S. CENSUS AND DEPARTMENT OF AGRICULTURE 1/

Inquiries are being received by the Department of Agriculture concerning apparent disagreements between the 1940 Census figures on poultry and the estimates published by the Agricultural Marketing Service. In considering the two sets of figures it should be understood that they are not comparable in all cases. Allowance must be made for certain differences in methods of collection, in forms of questions asked, and in the season of the year to which they relate.

The data collected by these two agencies supplement each other. The Census Bureau makes an enumeration of the most vital facts of the industry at 5-year intervals. The results of this enumeration are not published until after an interval of about a year -- too late to be of current value.

The Department publishes current monthly and annual estimates and uses the Census returns as its main basis in estimating numbers in farm flocks and the relative production of poultry in the different sections of the United States in the Census year. For intercensal years, changes in numbers and production are estimated on the basis of returns for thousands of sample flocks in all sections of the country.

The Department's estimates relate to the inventory date of January 1 when more chickens over 4 months old are on hand than in April or May by from 15 to 30 percent. There is always some omission in the Census enumeration due to the failure to report flocks located in out-of-the-way places or in suburban areas, and to other recognized handicaps to a complete coverage.

Adjustment for the time differential is made upon the basis of the changes shown from January 1 to date of the Census enumeration, in the flocks reported monthly by the Crop Reporters, and upon responses made to extensive special inquiries sent to flock owners on the two dates.

No close agreement is to be expected between the reports from the two agencies for numbers of chickens on hand in 1940. A more valid relation is shown by the numbers reported by the two agencies for the Census years 1930 and 1940.

Census

Chickens on hand 1930 - 378,878,281; 1940 - 337,949,145; decrease, 10.8%

Agricultural Marketing Service

Chickens on hand 1930 - 468,491,000; 1940 - 429,042,000; decrease, 8.4%

If it be assumed that the two Censuses were strictly comparable in completeness, average date of enumeration and form of inquiry, this difference would indicate an average yearly plus error of 0.2 percent in the estimates.

1/ This statement was prepared by S. A. Jones, Senior Agricultural Statistician, to answer requests received on this subject.

Chickens Raised: The estimates of chickens raised show wide differences from the Census figures. The number of chickens raised as reported to the Census is not as a rule an enumeration of current facts, but of rather hazy memories concerning events beginning 15 months earlier. Relatively few farmers keep records of chickens raised, eaten and sold, or of those that have died. These recollections are subject to serious memory omission. For instance, reports on monthly farm consumption work out to 44 percent more chickens eaten than similar reports on annual consumption.

The Agricultural Marketing Service uses additional evidence to establish the estimates of chicken production. This evidence includes production by hatcheries with allowance for chicks hatched on farms and for deaths, young chickens reported on sample farms during the spring months, chickens eaten monthly on farms as reported quarterly by crop reporters, consumption by non-flock owners in country, town and city as indicated by surveys of the Department of Labor and the Bureau of Home Economics, and commercial movement of poultry into consumption. The number of chickens raised in 1929 and 1939 as reported by the two agencies are as follows:

Census

Chickens raised 1929 - 673,092,052; 1939 - 660,565,663; decrease, 1.9%

Agricultural Marketing Service

Chickens raised 1929 - 751,051,000; 1939 - 775,558,000; increase, 3.3%

If the Census change is assumed to be correct, the average annual error in the Agricultural Marketing Service estimates would be +0.5 percent.

Eggs Produced: The Census enumeration of eggs produced during the previous year is subject to the same type of incompleteness as that on chickens raised. The estimates of the Agricultural Marketing Service since 1925 have been based upon changes in the number of layers on hand and in the rate of egg production per hen indicated by monthly returns from more than 20,000 farm flocks distributed in proper proportion in all sections of the United States.

The eggs produced in 1929 and 1939 as shown by the two series are as follows:

Census

Eggs produced in 1929 - 32,276,630,000; in 1939, 28,693,098,000; decrease, 11.1%

Agricultural Marketing Service

Eggs produced in 1929 - 37,921,000,000; in 1939, 38,226,000,000; increase, 0.8%

In this case a pronounced difference is shown by the two agencies in the change over the 10-year period, the Agricultural Marketing Service averaging 1.2 percent annually higher than the Census. Part of the difference is due to the greater proportionate holding of layers shown by the Agricultural Marketing Service. The great increase since 1937 in the rate of lay per hen, from an average of 93 eggs for the previous 10 years (1927-36) up to 103 eggs in 1939, may not be adequately reflected in the Census figures. Studies of commercial movement and consumption indicate that the estimates may show fewer eggs than were actually produced, rather than more.

Turkeys: The 1940 Census figures of 4,361,752 turkeys over 4 months old on hand, while subject to some inevitable omissions, should approach the truth as to numbers in April 1940. The Agricultural Marketing Service estimate of numbers on January 1 was 8,567,000. A large proportion of these latter were birds remaining for market, including not only the customary number of late birds but many others that could not be moved in 1939 due to the big market jam in the holiday market of that year. The two sets of figures appear to be in reasonable harmony.

Turkeys raised: No estimates of absolute numbers of turkeys raised were published by the Agricultural Marketing Service until 1939. The rapid increase in turkey production during the decade 1930-40 brought increasing demand for information and estimates were finally undertaken. Returns for sample flocks prior to 1936 were too few to give a close indication of the annual change in numbers except in the States of heavy production.

In the areas where production was important throughout the decade, the disagreement between the estimates and the Census is not great (4 percent in the West North Central States and 7 percent in the Far West). The differences are most marked in the States east of the Mississippi River where the industry has been reviving rapidly after a period of eclipse amounting almost to extinction.

The two series of figures on turkeys raised are as follows:

Census

Turkeys raised 1929, 16,794,485; 1939, 27,933,756; increase, 66%

Agricultural Marketing Service

Turkeys raised 1929, 16,794,000; 1939, 32,732,000; increase, 95%

The estimates for 1939 are 17 percent higher than the Census. Some incompleteness on the part of the 1940 Census is probable from failure to enumerate all flocks, but the estimates are probably too high in many Eastern States.

The Agricultural Marketing Service figures on turkeys will be reviewed in the light of the Census returns and all other available evidence, and needed revisions for the period 1929-1939 will be published in connection with the spring poultry estimates for 1941-1942.

